REMARKS

The examiner has required restriction to one of the following groups of claims:

I. Claims 1-4, drawn to Group I, classified in class 361, subclass 41.

II. Claims 5-10, drawn to Group II, classified in class 362, subclass 32.

Applicants hereby confirm the election of claims 1-4 of Group I. Non-elected claims 5-10, which are withdrawn from consideration, have been cancelled as directed to non-elected subject matter.

Claims 1-4 are rejected under 35 U.S.C. § 102 as being anticipated by Zhang et al. (U.S. 6,211,771).

The present application discloses an over-current protection device comprising a current-sensing element and an upper metallic conductive sheet connected to the upper electrode foil of the current-sensing element. The upper metallic conductive sheet has at least one notch on its surface. Claim 1 has been amended to specify a significant aspect of the invention, viz., that "the depth of the notch is smaller than the thickness of the upper metallic conductive sheet," as shown in Fig. 2.

Zhang et al., on the other hand, discloses an electrical device including a plurality of upper foil members 30 and upper channels 301, 302. However, the upper foil members 30 are separated from each other by the upper channels 301 running in one direction and upper channels 302 at right angles thereto (column 7, lines 22-25). In other words, the channels 301, 302 penetrate through the upper foil members 30 in the vertical direction (see Fig. 2), and the depth of the channels 301, 302 is equal to or larger than the thickness of the upper foil members 30. Thus, as amended, claim 1 and the claims dependent thereon cannot be anticipated by Zhang et al.

Furthermore this structural difference between the claimed invention and the Zhang et al. device results in a significant functional difference. Because the notch in the claimed invention does not extend through the metallic conductive sheet, the outer and inner sides of that conductive sheet have unbalanced thermal expansion coefficients so that, at a high temperature, a torque is generated to deform the sheets outwardly so that they generate a cracking face in the PTC conductive material. This unbalance in thermal expansion coefficients cannot occur in the Zhang et al. discrete upper and lower foil members 30 and 50.

Indeed, if the Zhang et al. device were to function as applicants' claimed invention, i.e., to create a torque which causes the PTC element to fracture along a face substantially parallel to the outer conductive sheets, it would completely defeat the purpose of the Zhang et al. device. That purpose is to facilitate separation of a conductive polymer mass into a plurality of discrete usable devices, by facilitating fracture along planes which extend between and intersect the outer conductive sheets.

For all of the foregoing reasons, it is believed that, as amended, claims 1-4 patentably distinguish from the cited art and, therefore, allowance of the application is respectfully asked.

Respectfully submitted,

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